

rufescent; forehead, cheeks to above the eye, and sides of the neck rufous; middle of the belly whitish; vent, flanks, and under tail-coverts dusky, with rather broad white bands; wings dusky olive, the first quill white-edged, the upper coverts narrowly banded with whitish, the under coverts with more white; tail entirely dusky; bill greenish, pale beneath; legs reddish; iris yellowish brown.

Total length 9 inches; wing 5; bill, to front, 1; tarsus $1\frac{1}{2}$; middle toe and claw $1\frac{5}{8}$.

Hab. Sarawak (Borneo).

Remark.—This species seems near *P. fasciata*, Raffles, and *P. rubiginosa*, Temm., but differs considerably from both in coloration.

5. DESCRIPTIONS OF THE CHARACTERS OF SIX NEW SPECIES OF RHOPALOCEROUS LEPIDOPTERA IN THE COLLECTION OF THE BRITISH MUSEUM, WITH NOTES ON THE ALLIED SPECIES. BY A. G. BUTLER, ESQ., F.Z.S.

1. DANAIS INUNCTA.

Upperside. Front wings greasy white, semitransparent, yellow clouded with olivaceous at the base; anterior margin rich brown, enclosing two elongate white spots, one before and one beyond the end of the cell; hind margin rich brown, deeply sinuated and dentated, enclosing four white spots near the apex, between the nervules, the last one just before the first median nervule; three small white spots close to the edge, one between the first and second, and the other two between the second and third median nervules; a large quadrate white spot and a small marginal spot between the third median nervule and the submedian nervure; all the nervures brown. Posterior wings white, basal half greasy white, base yellow; nervures brown, from the anterior margin to the first median nervule connected by a broad, irregular, rich-brown transverse band which runs into the hind margin; hind margin rich brown, sinuated on its inner edge between each of the folds, enclosing twelve spots near the edge between the nervules, the first and second and the eleventh and twelfth brown, the others white. Body, head, and thorax black, spotted with white; abdomen pale brown.

Underside. Front wings as above; but with three additional, small spots on the hind margin. Posterior wings as above; but all the marginal spots white. Body as above.

Hab. Waigiou.

2. CYRESTIS ACHATES.

Upperside. Front wings white, with faint roseate reflection; anterior margin, basal portion ochreous, the remainder olivaceous; an oblique, glaucous, elongate-triangular patch close to the base, its point touching the interior margin; a second similar larger patch crossing the centre of the cell, two converging narrow oblique lines, apparently closing the cell, uniting into a single line beneath it, and

enclosing a small triangular glaucous patch, its base resting on the anterior margin; an irregular oblique line crossing the middle of the wing; apical portion of the wing and outer margin brown, enclosing two grey ocelli, and interrupted by three longitudinal paler brown lines, the two inner ones varied with white; three blue-grey lunules near the anal angle and parallel to the outer margin, bordered by a black band on their inner edge, the upper one, between the second and third median nervules, larger than the other two, and having an oval black spot on its outer edge, which gives it the appearance of an ocellus; the two lower ones bordered on their outer edge by a broad bright ochreous dash, widening below and extending to the anal angle, enclosing two minute transverse white spots. Posterior wings white, with faint roseate reflection; hind margin deeply sinuated, with two caudal projections, the one at the extremity of the first nervule acute, slightly inclining inwards, elongate, the other, at the anal angle, obtuse, nearly quadrate; interior margin slightly emarginate; a narrow oblique line crossing the middle of the cell, and terminating just below it; two converging narrow oblique lines apparently closing the cell, and disappearing in an ochreous patch at the anal angle; a broad ocellated band crossing the wing at two-thirds of the distance from the base, following the direction of the outer margin, its inner edge deep brown, intersected by a blue-grey line which runs into the outer edge at the median nervules, forming the lower portion of the brown into ovate spots, its outer edge pale brown, enclosing small white spots between the nervules; outer margin deep brown, intersected in the middle by a pale line, brown to beyond the tail, where it becomes violaceous; anal angle, inner margin, and a broad, irregular, elongate fascia above the outer margin suffused with bright ochreous; the patch changes to deep brown near the apex; the anal caudate projection ferruginous, enclosing, with the anal ochreous suffusion, three irregular roseate markings.

Underside. Front wings white, with faint roseate reflection, bright ochreous at the anal angle; the markings the same as above, except that they are all brown, and the narrow trigonate basal patch is wanting. Posterior wings as above; but the ocellated band more distinctly separated into ocelli.

Hab. Mysol.

The allies of this species are *Cyrestis mænalis*, Erichs. (Philippine Islands), and *Cyrestis nivea*, Zinck (Java, Borneo, &c.).

3. CYRESTIS SERICEUS.

Upperside. Front wings white, with roseate reflection; six oblique, irregular, double ochreous lines, extending to the middle of the wing at nearly equal distances from each other, crossing from the anterior margin to the median nervure, the third and fifth enclosing a fine central line; the fifth one deeper-coloured; three paler ochreous irregular, oblique, double lines at regular distances below the cell, the outer one extending as far as the fifth supramedian double line; an oblique pale ochreous band crossing the wing at two-thirds of the

distance from the base; a paler, irregular, double ochreous band not far from, and parallel to, the outer margin, enclosing two minute longitudinal brown spots near the apex; outer margin pale ochreous, longitudinally intersected by a white line, enclosing a fine black line. Posterior wings white, with roseate reflection; outer margin sinuated, with two caudal projections, the anal one short, rounded, obtuse; a pupillate cream-coloured spot at the anal angle; two obliquely placed black spots just above the anal projection; four double, irregular, oblique, ochreous lines crossing the cell, the first and third only extending to the median nervure, the third darker-coloured, the fourth deeply dentated and angulated near the inner margin, the second meeting the fourth near the anal angle; five ochreous bands following the direction of the outer margin, converging towards the anal angle, where they disappear in a bright ochreous anal suffusion; the second, third, and fourth intersected at the nervures, the third and fourth enclosing an ovate black spot near the anterior margin, and four oblong black lines between the nervures; outer margin pale brown, with a narrow black line just above it following the direction of the outline of the wing.

Underside. Front wings the same as above; but the extremities of the nervures of the outer margin tipped with brown, and all the markings much paler. Posterior wings the same as above, except that all the markings are much less distinct, and there is a large, nearly circular, black spot just above the anal projection.

Hab. Borneo.

Allied to *Cyrestis cocles*, Fabricius (Sylhet).

4. VICTORINA APHRODITE.

Upperside. Front wings falcated, elongate, deeply sinuated on the outer margin, especially below the first discocellular; rich brown, paler towards the apex; crossed in the middle by a broad silky-white band; four oblong indistinct copper-red spots between the nervures, halfway between the band and the apical portion of the hind margin; four paler brown lunules between the nervures near the hind margin, extending from the first discocellular to the anal angle. Posterior wings rich brown, very deeply sinuated, forming a short tail at the end of the second subcostal and the second and third median nervules, and a long tail at the end of the first median nervule; wings rich brown, crossed beyond the middle by a broad white band glossed with pink, margined with blue at its lower extremity and outer edge, extending from the anterior margin to near the end of the first median nervule, broader above than below; a pale brown lunule over each of the sinuations, blue ones at the anal angle; indications of blue lunules above each of the marginal ones; two connected dull red lunules above the two small anal ones; a dull red streak close to the inner margin, just below the end of the abdomen. Body rich brown.

Underside. Front wings golden brown, paler a little beyond the middle, crossed in the middle by a broad silky-white band, glossed with pink, deeply sinuated and dentated on its outer edge; a large

lunular white mark glossed with pink near the apex; three very indistinct white lunules glossed with pink between the nervules, the upper one placed obliquely to the apical lunule; an indistinct white mark just beyond the cell; four distinct white lunules glossed with pink, the lowest one geminate, between the nervules, near the hind margin, extending from the first discocellular to the anal angle; outer margin and basal portion of anterior margin dull red; cell crossed in the centre by four small blue-white spots, the two upper ones placed vertically, the lower ones obliquely; a small blue-white spot and an obliquely placed, elongate, elbowed line at the end of the cell; base marked by three small cream-coloured spots; outer margin dull orange. Posterior wings rich golden brown, deeper beneath; crossed beyond the middle by a broad white band glossed with pink, broader above than below, extending from the anterior margin to near the end of the first median nervule, where it turns off at an angle towards the inner margin, becoming rufous brown at its outer extremity; an indistinct cloudy band of white scales glossed with pink from near the anal angle to the end of the cell; base dull rufous, outer margin dull orange; a marginal row of eight white lunules, glossed with pink, near it; above them, and contiguous to them, a series of blue lunules with rufous centres. Body reddish; palpi white.

Hab. Mexico.

This species, which is the most beautiful in the genus, somewhat resembles *Victorina trayja*, Hübner (Brazil), on its upper surface; on the underside it is nearer to *Victorina epaphus*, Latreille (South America and Mexico)*.

* *Victorina aphrodite* differs from the description given by Mr. Bates of *A. superba* in the following particulars:—

A. SUPERBA.

"Above: both wings crossed by a white belt, much broader on the fore than hind wing, and edged with light blue.

"Beneath light brown; belt same as above; fore wing, outer border has a row of brownish-white lunules, not reaching the apex; the hind wing has a similar row placed between two lunulated red streaks, both edged on each side with dusky."—*Ent. Month. Mag.* vol. i. p. 161, sp. 61.

V. APHRODITE.

Above: both wings crossed by a white belt, edged with blue; that of the hind wing blue below for one-fourth of its length.

The wings with reddish markings in various parts; there is no mention made of any such markings in the description of *A. superba*.

Beneath: hind wing, outer margin reddish; above it a row of white lunules reaching the apex, and not similar to those of the upper wing; and above these lunules not a lunulated red streak edged with dusky, but a lunulated blue streak with a reddish spot in the centre of each lunule.

The belt is not the same as above on either of the wings; it is sinuated and dentated on the outer edge of the upper wing; and in the hind wing it turns off at an angle at the first median nervule, and continues to near the anal angle, where it becomes suffused with reddish.

There is also a broad indistinct dusky band of white scales reaching from near the anal angle to the end of the cell, which does not appear to be the case with *A. superba*.

5. ZEUXIDIA AMETHYSTUS.

Upperside. Front wings deep brown glossed with purple; a broad lilac band glossed with purple near the apex, extending from the anterior margin, just beyond the cell, to the third median nervule, wider above than below; outer margin pale. Posterior wings, anal angle caudate; wings rich brown, lower portion glossed with purple; a broad lilac patch, glossed with purple, bisinuate on its inner edge, at the anal angle, extending from just below the body to the fold between the second and third median nervules; cell hirsute, hair ochreous; outer margin pale.

Underside. Front wings golden brown, dusky towards the inner margin; a narrow, irregular, oblique, deeper-brown band crossing the middle of the wings; three irregular paler brown bands crossing the cell at equal distances; a pale brown spot on the anterior margin, just beyond the central band; two similar spots near the apex. Posterior wings golden brown; a deeper, oblique, narrow, irregular, brown band crossing the wings at the end of the cell, from near the end of the costal nervure to beyond the middle of the third median nervule; two indistinct, pale brown, irregular bands near the base, the inner one extending to the median nervure, the outer one to the middle of the cell; a large, oval, ochreous ocellus, pupillated with white, between the first and second subcostal nervules, and a circular ochreous ocellus pupillated with white between the second and third median nervules.

Hab. Sumatra.

This species is the third of the genus, unless we include in it *Amathusia amythaon*, Doubleday (Sylhet), which should, as I think, belong to it. The latter appears to be allied to my species, which, however, seems to be intermediate between *Zeuxidia luxeri*, Hübner (Java), and *Zeuxidia doubledaii*, Westwood (India), though evidently quite distinct from both of them.

6. HETEROCHROA CALIFORNICA.

Upperside. Front wings deep brown, crossed beyond the middle by an irregular band of cream-coloured spots; hind margin pale; two short orange transverse bands margined with black, the one crossing the middle, the other the end of the cell, between them a short black band; a large subapical orange blotch; a lunulate pale brown submarginal band, extending from the subapical blotch to the anal angle; cell blue-grey. Posterior wings deep brown, crossed before the middle by a cream-coloured band tapering to just above the anal angle, slightly trisinate on its outer edge, its inner edge slightly undulating; outer margin pale, a lunulate submarginal pale brown band; an orange lunule at the anal angle.

Underside. Front wings, apical half deep brown; cell pale blue, interrupted as above; front margin pale ochreous; beneath the cell pale brown; a pale orange spot below the median nervure near its origin, angulated on its outer edge; cream-coloured band as above; subapical blotch extending to the middle of the wing, bordered by

a submarginal band of white; hind margin pale, bordered with dark brown on its inner edge. Posterior wings bright orange-ochreous, crossed before the middle by a cream-coloured band bordered with deep brown; basal half to just below the cell violaceous, crossed before the middle of the cell by an orange band extending along the front margin to the cream-coloured transverse band, and from the front margin to the median nervure; a second orange band beyond it, and touching the cream-coloured band, bounded on both sides by the cell; a pale blue band extending from just above the anal angle along the outer edge of the central band to the first median nervule, where it becomes suffused with dusky, and continues up to the anterior margin; hind margin edged with a lunular brown band enclosing a narrow, grey, lunular, submarginal band, and margined within by a broad blue-grey band, having a narrow, interrupted, irregular black line on its inner edge.

Hab. California.

Closely allied to *Heterochroa bredowii*, Hübner (South America and West Indies); but differs from it above in having the lowest cream-coloured spots of the fore wing very small, so as to separate the band from that of the lower wing. In the hind wing it has a simple orange lunule at the anal angle, instead of a double one.

On the underside orange takes the place of rich reddish brown, blue of grey; the orange subapical blotch only extends along the outer margin to the middle of the wing, and does not terminate below in two lunules. The basal upper half of the hind wing is crossed by an additional short orange band; the wings are much more rounded than those of *H. bredowii*, and are not produced at the end of the second median nervule.

6. LIST OF DIURNAL LEPIDOPTERA COLLECTED BY CAPT. A. M. LANG IN THE N.W. HIMALAYAS. BY FREDERIC MOORE.

(Plates XXX., XXXI.)

The following list comprises an enumeration of the Rhopalocerous Lepidoptera recently collected by Capt. Lang, together with his notes as to the particular locality, &c., of the several species.

PAPILIONIDÆ.

1. PAPILIO DISSIMILIS, Linn.

The only place in which I have seen this species is Subbathoo, altitude 4000 feet, in June, frequenting a grassy undulating down, flying rapidly in long circuits, pitching occasionally on grassy knolls, and generally returning by the same route to the same spot after a flight.

2. PAPILIO GOVINDRA, Moore.

Papilio agestor, Kollar in Hügel's Kaschmir, pl. 3. f. 1, 2 (nec Gray).